#### PROJECT DESCRIPTION

#### I. GENERAL

This project involves the modification of an existing Intersection Control Beacon with street lighting at the intersection of MD 260 (Chesapeake Beach Rd) and Jewell Rd / Brickhouse Rd in Calvert County. The Intersection Control Beacon shall be upgraded to a full color Traffic Control Signal with video detection cameras for all approaches. MD 260 (Chesapeake Beach Rd) is assumed to run an east-west direction.

#### II. INTERSECTION OPERATION

- 1. The intersection is to operate in a NEMA six-phase, fully-actuated mode, with the MD 260 (Chesapeake Beach Rd) approaches running concurrently. Exclusive/Permissive left turn phases shall be provided for both approaches of MD 260 (Chesapeake Beach Rd). The Jewell Rd / Brickhouse Rd approaches shall also run concurrently.
- 2. A full-traffic-actuated, eight-phase controller with video interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

#### III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7652 seventy-two hours in advance of intended work.
- 3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787–7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

The contact persons for District #5 are as follows:

Assistant District Engineer - Traffic Phone: (410) 841-1819

Mr. John Mays Assistant District Engineer - Maintenance Phone: (410) 841-1013

Mr. Joe Horty Assistant District Engineer - Utility Phone: (410) 841-1005

Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone: (410) 787-7630

Mr. Ed Rodenhizer Chief, Signal Operations Section 410-787-7652

Mr. Sonny Bailey Chief Sign Shop 410-787-7676

The power company representative is:

Baltimore Gas and Electric 7317 Parkway Drive South Hanover, MD 21076, 410-850-4620

# EQUIPMENT LIST

# FOUTPMENT TO BE SUPPLIED BY S.H.A..

A.	EQUIPMENT TO BE SUFFETED BY 3.0.4			
ITEM NO.	DESCRIPTION	QUANTITY		
9042	Controller ASC II with telemetry	1 8	ΕA	
9044	Controller cabinet, size "6"	1 8	ĒΑ	
9086	Video detection interface equipment: 1-4 cameras (To be installed by signal shop).	1 i	ΞΑ	
9570	Sheet aluminum signs to consist of: (ground mount)	96	SF	
	W3-3 NEW "SIGNAL AHEAD" sign, (48" x 48") ground mounted with hardware.	2 [	Ξ <b>Α</b> .	
	D-2(3) "(arrow) Jewel RD / Brickhouse RD (arrow) / NEXT SIGNAL" sign (48" x 96")	1 . <del>f</del>	EΑ	
	D-2(3) "(arrow) Brickhouse RD (arrow) Jewell RD (arrow) / NEXT SIGNAL" sign (48" x 96")	1 (	EΑ	

#### EQUIPMENT LIST (CONT.)

EQUIPMENT TO BE FURNISHED AND INSTALLED

	В•	BY THE CONTRACTOR	ALLED	
	ITEM NO.	DESCRIPTION	QUAN	ГІТҮ
	1001	Maintenance of traffic per assignment.	1	EA
	1003	Removal of existing permanent pavement line markings Any Width	155	L.F.
	1004	Removal of existing permanent marking letters, symbols, arrows and numbers.	2	EA
	2001	Class 2 Excavation.	1	C.Y.
	2002	Test Pit Excavation	2	C.Y.
	5001	5" white lead free permanent preformed thermoplastic pavement marking.	260	L.F.
	5003	24" white lead free permanent preformed thermoplastic pavement marking.	140	L.F.
	8001	12" LED signal head section.	38	EA
•	8013	Embedded Metered service pedestal.	1	EA
	8017	Remove and dispose of existing material & equipment per assignment.	1	EA
٠	8025	Electrical cable – 2 conductor (No. 12 AWG). tray cable.	310	L.F.
	8026	Schedule 80 rigid PVC conduit up to 4" - bored.	115	L.F.
	8028	Schedule 80 rigid PVC conduit up to 4" - trenched.	940	L.F.
	8030	Relocate existing sign.	2	S.F.
	8033	Wood sign supports 4"x6".	192	L.F.
-	8034	No. 6 AWG stranded bare copper ground wire.	245	L.F.
٠,	8039	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	90	L.F.
	8043	Noninvasive detector (500' lead-in cable).	1	EA
	. 8044	Noninvasive detector (1000' lead-in cable).	<b>1</b>	EA
	8045	Furnish and install electrical handhole.	6	EA
•	8046	Install ground mounted sign.	96	SF
	8048	Video detector camera & cable up to 500'.	4	EA
	8058	Electrical cable - 5 conductor (No. 14 AWG).		L.F.
	8059	Electrical cable – 7 conductor (No. 14 AWG).	1095	
	8067	Install controller and cabinet base mount.	1	EA

# C. EQUIPMENT TO BE REMOVED

SHA Forces shall remove the controller and all auxilliary equipment from the ICB cabinet. The cabinet and all other removed signal materials are to become property of the contractor.

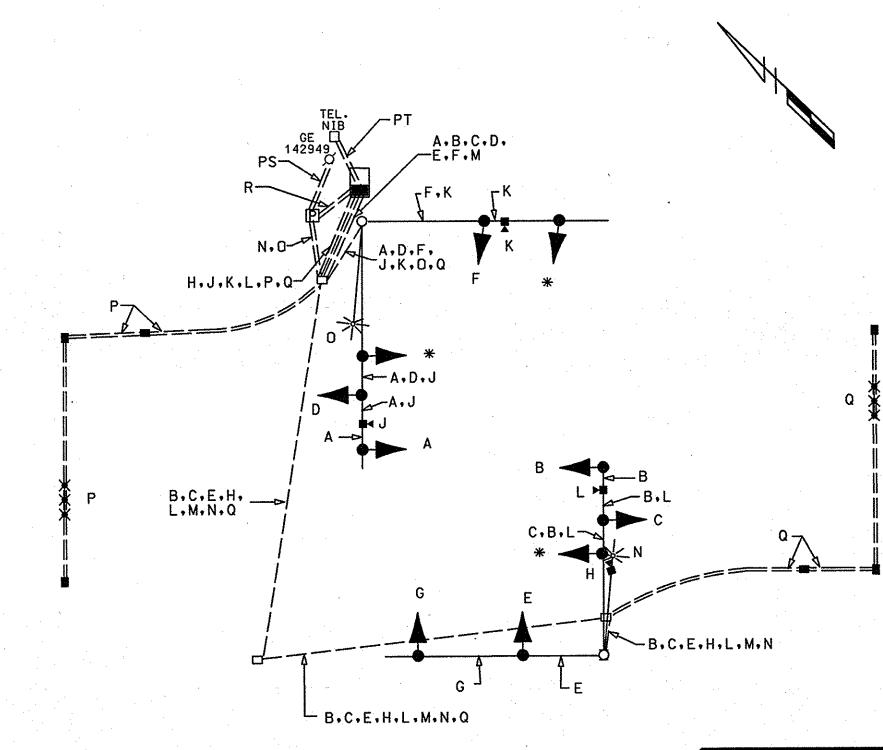
## PHASE CHART

1 2 3 4 5 6 7 8 9 10

	(R) (Y) (Y) (G) (G)	R) (R) (Y) (Y) (G) (G)	RYG	(R) (Y) (Y) (G) (G)	(R) (Y) (Y) (G) (G)	R Y G	R Y G	RYG	R Y G	RYG	
PHASE 1 & 5	<b>∢</b> -G∕R	<b>∢</b> -G/R	R	<b>4</b> G-/R	<b>4</b> -G−/R	R	R	R	R	R	1
CHANGES TO PHASES 1 & 6. 2 & 5 OR 2 & 6								<b>→</b> +			
PHASE 1 & 6	<b>4</b> -G-/G	<b>∢</b> G-/G	G	R	R	R	R	R	R	R	<u>.</u>
1 & 6 CHANGE	<b>←</b> Y-/G	<b>4</b> -Y-/G	G	R	R	R	R	R	R	R	<u></u> → <sub>T</sub>
PHASE 2 & 5	R	R ·	R	<b>4</b> -G/G	<b>←</b> G-/G	G	R	R	R	R	± +
2 & 5 CHANGE	R	· R	R	<b>←</b> Y-/G	<b>4</b> -Y-/G	G	R	R	R	R	т
PHASE 2 & 6	G	G	G	G	G	G	, R	R	R	R	1 +
2 & 6 CHANGE	Y	Y	Ϋ́	Υ	Y	Y	R	R	R	R	
PHASE 4 & 8	R	R	R	R.	R	R	G	G	G	G	<b>↓</b> → ⊢
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	-
FLASHING	EI /V	EI /V	EI /V	EI /Y	EL /Y	FI:/Y	FI /R	FI /R	FL/R	FI /R	<del>+</del> †

### WIRING DIAGRAM

OPERATION



# WIRING KEY 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G )

G - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

J CONTROL CABLE (CAMERA TO K CONTROLLER) UP TO 500'

M - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

2-CONDUCTOR TRAY CABLE (NO. 14 A.W.G )

P - NON-INVASIVE MICROLOOP LEAD-IN CABLE (500')

Q - NON-INVASIVE MICROLOOP LEAD-IN CABLE (1000')

Pt-PROPOSED TELEPHONE DROP PS-PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY BGE

\* - USE EXISTING ELECTRICAL CABLE

**TOD NO:XX448-21M** SHA NO:CA372A52/B52 MD 260@ BRICKHOUSE RD



STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

MD 260 (CHESAPEAKE BEACH RD) AND JEWELL RD. / BRICKHOUSE RD.

TOD NO.

NOTTINGHAM. MARYLAND

GENERAL INFORMATION SHEET SCALE NONE DATE 10/31/08 CONTRACT NO. XX4485185 COUNTY \_ CALVERT DESIGNED BY JAMES ALLEN Jr. LOGMILE 040260001.44 DRAWN BY\_ CHECKED BY STREET TRAFFIC STUDIES, LTD.

Ph (410) 590-5500 Fax (410) 590-6637

F.A.P. NO.

T-191 TS NO. 3902B DRAWING NO. 2 OF 2 SHEET NO. OF

5605GI.DGN PLOTTED: MONDAY, NOVEMBER 10, 2008 AT 4:00:57 PM FILE: J175GG02.DGN